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Federal Communications Commission  
Office of the Secretary

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ORIGINAL

May 18, 2007

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street S.W.  
Washington, DC 20554

**Re: National Exchange Carrier Association, Inc.'s Proposed 2007 Modification of Average Schedule Formulas, WC Docket No. 06-223**

***Notice of Ex Parte Presentation***

Dear Ms. Dortch:

On December 21, 2006, pursuant to section 69.606(b) of the Commission's rules, 47 C.F.R. § 69.606(b), NECA filed proposed modifications to the interstate average schedule formulas. NECA's proposed modifications are scheduled to take effect on July 1, 2007 subject to Commission approval or modification.<sup>1</sup>

By Public Notice issued January 29, 2007,<sup>2</sup> the Commission invited interested parties to comment on NECA's proposed modifications on or before February 13, 2007. AT&T, NTCA, OPASTCO and Verizon filed initial comments on a timely basis, and NECA, AT&I and NTCA filed replies on February 23, 2007, the date specified in the Commission's Public Notice.

Now, nearly three months after the established comment deadline, Verizon has filed an *ex parte* letter attempting to introduce into the record a declaration by Gustavo Bamberger and Lynette Neumann, Senior Vice President and Vice President, respectively, of

<sup>1</sup> National Exchange Carrier Association, Inc. 2007 Modification of Average Schedules, WC Docket No. 06-223 (Dec. 21, 2006) (*NECA Filing*).

<sup>2</sup> *National Exchange Carrier Association, Inc.'s Proposed 2007 Modification of Average Schedules*, Public Notice. WC Docket No. 06-223, DA 07-306 (Jan. 29, 2007) (*Public Notice*).

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Lesecon (an economics consulting firm).<sup>3</sup> According to Verizon, this filing provides “additional evidence” supporting Verizon’s claim that the cost data underlying NECA’s proposed modification was insufficient.<sup>4</sup>

In fact, as explained in the attached declaration of Stephen Quinnan, NECA Director – Average Schedules, the various assertions and claims set forth in the Bamberger & Neumann analysis are wholly without merit.

In particular, their claim that NECA’s proposed formulas might overpay average schedule companies by \$100 million or more is based on a critical factual error and is wrong. Other claims in Bamberger & Neumann’s declaration are of the “nothing ever constitutes enough detail” variety, which the Commission and the courts have long rejected.<sup>5</sup> Nevertheless, for the sake of completeness Mr. Quinnan has responded to each of these claims in his attached declaration.

Before turning to Mr. Quinnan’s response, however, NECA respectfully requests at the threshold that the Commission simply exclude Verizon’s May 8 *Ex Parte* and the accompanying Bamberger & Neumann declaration from the record of this proceeding. The date for filing comments in this proceeding has long past. Verizon makes no attempt to explain why it could not have raised the issues presented in its *ex parte* when it filed its initial comments, nor does it even request a waiver of the Commission’s rules governing comment filing deadlines.

Acceptance of Verizon’s late-filed comments would be prejudicial to NECA, other interested parties, and the Commission itself. The formulas proposed in NECA’s 2007 Modification are scheduled to take effect on July 1, 2007.<sup>6</sup> Revenue requirements associated with average schedule settlements must be incorporated in NECA’s annual access tariff, which is required to be filed in mid-June, only a few scant weeks from now. In view of this timetable, the Commission customarily issues orders approving or modifying NECA average schedule modifications in late May or early June of each year, in order to permit NECA to complete its tariff preparations.

Verizon has waited until the last minute to supplement the record in this proceeding with complicated (but ultimately baseless) claims regarding the validity of NECA’s calculations. While NECA responds herein as quickly and as completely as possible to

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<sup>3</sup> See Letter to Marlene H. Dortch, FCC, from Donna Epps, Verizon, WC Docket No. 06-223 (May 8, 2007), attaching Declarations of Gustavo Bamberger and Lynette Neumann (*Verizon Ex Parte*).

<sup>4</sup> *Id.* at 1

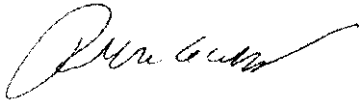
<sup>5</sup> See, e.g., *Annual 1987 Access Tariff Filings*, Memorandum Opinion & Order, 2 FCC Rcd 280, at ¶62 (1986). See also, *The Bell Atlantic Telephone Companies Revisions to Tariff F.C.C. No. 1*, Order, 7 FCC Rcd 4103 (1992) (refusing to reject or suspend and investigate tariff revisions based on claims of inadequate detail); *NARUC v. FCC*, 737 F.2d 1095, 1124-25 (D.C. Cir. 1984) (the Commission need not require “elaborate independent verification proceedings on each factual comment submitted to the agency” but rather, is “entitled to rely on . . . representations by parties who were uniquely in a position to know.”)

<sup>6</sup> Public Notice at 1

the various claims advanced by Verizon's economists, allowing Verizon's untimely filing in the record of this proceeding at this point is fundamentally unfair to NECA, outside parties and the Commission itself.<sup>7</sup>

The Commission should not allow its processes to be abused in this manner. NECA accordingly requests the Commission deny Verizon's attempt to file what amounts to an additional untimely set of comments and exclude the material accompanying Verizon's *ex parte* from the record.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard A. Askoff", written in a cursive style.

Richard A. Askoff

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<sup>7</sup> The Commission has declined to consider issues raised in *ex parte* filings that raise new issues late in the process. See, e.g., *Implementation of the Subscriber Carrier Selection Changes Provisions of the Telecommunications Act of 1996*, and *Policies and Rules Concerning Unauthorized Changes of Consumers Long Distance Carriers*, Third Report & Order and Second Order on Reconsideration, 15 FCC Rcd 15996, at ¶15, n.12 (2000) (refusing to consider additional, complex issues related to the verification of orders for changes in preferred carriers, which were raised in an *ex parte* filing made late in the FCC's consideration of petitions for reconsideration); *Improving Public Safety Communications in the 800 MHz Band*, Report & Order, Fifth Report & Order, Fourth Memorandum Opinion & Order, and Order, 19 FCC Rcd 14969 at ¶219 (2004) (declining to consider technical issues raised late in the process through *ex parte* filings made in response to a CTIA request for changes in public safety radio). It should do so in this instance as well.

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter c	)	
	)	
National Exchange Carrier Association, Inc.	)	WC Docket No. 06-223
Proposed 2007 Modification of Average	)	
Schedule Formulas	)	

**Declaration of Stephen Quinnan**

1. I, Stephen Quinnan, am the Director of Average Schedules at the National Exchange Carrier Association, Inc. I have held this position since 1983, during which time I have been responsible for directing the preparation of nearly 50 filings or other documents before the Commission and the courts relating to statistical studies supporting NECA's proposed average schedule settlement formulas, including NECA's 2007 Modification of Average Schedules.'
2. The studies supporting these filings have included designs of probability samples, wide-ranging analyses of data collected from these samples, and detailed documentation of statistical conclusions. I have a Bachelor of Arts degree in Mathematics from Iona College in New Rochelle, New **York**, and a Master of Science degree in Mathematical Statistics from Florida State University in Tallahassee, Florida. My graduate studies focused on the theory and methods underpinning probability sampling, variance analysis and statistical estimation.
3. I am making this declaration to respond to arguments and assertions contained in the Declaration of Gustavo Bamberger and Lynette Neumann (herein, "Bamberger & Neumann") submitted on May 8, 2007 in the above-captioned proceeding by Verizon.'
4. At the outset, I observe that most of the allegations set forth by Bamberger & Neumann appear to be based on factual errors and misunderstandings. I have been available at all times since NECA's Filing was submitted to answer reasonable questions regarding the proposed formulas and development process. Unfortunately, neither Verizon nor its experts made any attempt to contact me or any member of my staff to obtain clarification of these concerns prior to submitting their ex parte.

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<sup>1</sup> National Exchange Carrier Association, Inc. 2007 Modification of Average Schedules, WC Docket No. 06-223 (Dec. 21, 2006) (*NECA Filing*).

<sup>2</sup> See Letter to Marlene H. Dortch, FCC, from Donna **Epps**, Verizon, WC Docket No. 06-223 (May 8, 2007), attaching Declaration of Gustavo Bamberger and Lynette Neumann (May 4, 2007).

5. Bamberger & Neumann assert that NECA has inflated the proposed formulas by more than \$100 million.<sup>4</sup> Bamberger & Neumann attempt to support this claim by comparing two numbers in NECA's filing. The first, \$523,383,385, was taken from Exhibit 6.4 of NECA's filing and is mistakenly called the annual "aggregate revenue requirement."<sup>5</sup> The second number \$53,336,272, is the proposed overall total monthly settlement level for all average schedule companies as taken from Exhibit 7.20 of the Filing. By multiplying this monthly settlement number by twelve, Bamberger & Neumann produce a proposed annual settlement of \$640,035,264.<sup>6</sup> The difference between this number and the "aggregate revenue requirement" is \$116.65 million. Bamberger & Neumann claim they "have not been able to identify any analysis by NECA that purports to show that this additional \$116.65 million in proposed payments is justified."<sup>6</sup>
6. Bamberger & Neumann's use of the data in NECA's filing is incorrect. This first number cited is actually the weighted sum of interstate revenue requirements determined by NECA *for its sample of* average schedule companies, not the population. NECA's filing does not present this number as "revenue requirement" of the average schedule population, but rather as an entry in an Exhibit showing the distribution of interstate costs by account and category among responding sample companies.
7. NECA does not use totals of sample data to establish population revenue requirements. Rather, NECA uses its sample to establish population means and ratios, which are then used to determine the correct cost per unit to include in each settlement formula.
8. Bamberger & Neumann should have adjusted their first number for sample non-responses.<sup>7</sup> If the Bamberger & Neumann comparison included a non-response adjustment, their analysis would show settlements that are nearly the same as revenue requirements. Exhibit I shows this calculation:

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<sup>4</sup> *Rumherger & Neumann* at 7-9.

<sup>4</sup> *Bamberger & Neumann* at 7-8,

<sup>5</sup> *Id* at 8-9.

<sup>6</sup> *Id*

<sup>7</sup> Reasons for non-response by **some** sample companies included a lack of resources, unavailability of some source documents required for validation, and other factors. **See NECA Filing** at III-4.

Exhibit I

Estimated Revenue Requirement of the Average Schedule Population Using  
Bamberger & Neumann Method (Corrected for Sample Non-Response)

A. Selected Sample Size	209
B. Responding Sample Size	170
C. Non-Response Adjustment Factor (A / B)	1.2294
D. Weighted Sample Revenue Requirement	\$523,383,385
E. Population Revenue Requirement Adjusted for Non-Response (C x D)	\$643,453,691
F. Proposed Formula Settlements	\$640,035,264
G. Settlements Versus Revenue Requirements (F - E)	-\$3,418,427

9. As noted above, NECA's study relies on sample means and ratios, which are unaffected by non-response.<sup>8</sup> Thus, there would have been no need for NECA to include a non-response adjustment in its filing because such an adjustment would not have affected any results. In any event, Bamberger & Neumann's assertion that NECA's proposed formulas will overpay average schedule companies by \$100 million or more is completely unfounded.<sup>9</sup>

10. The remainder of Bamberger & Neumann's declaration is devoted to complaints that NECA did not provide sufficient data or explanations to enable Bamberger & Neumann to duplicate NECA's results.

11. To my knowledge, NECA's annual average schedule filings are already among the lengthiest (over 600 pages) and most completely documented filings of any type received by the Commission. Requiring NECA to include additional data would only expand the complexity of NECA's annual filing, in direct conflict with the Commission's announced preference for simplifying the average schedule approval process."

12. Moreover, the Commission has previously stated it is not necessary for NECA "to provide the calculations, for confirmation of the mathematical accuracy, of each arithmetic operation that NECA performed" in connection with an average

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<sup>8</sup> An example explaining why sample means and ratios are unaffected by non-response for a group of hypothetical sample study areas is displayed in Attachment A.

<sup>9</sup> Accordingly, Bamberger & Neumann's claim (at 9) that NECA's formulas might produce earnings that exceed authorized levels are incorrect.

<sup>10</sup> See 2000 Biennial Regulatory Review – Requirements Governing the NECA Board & Directors under Section 69.602 of the Commission's Rules and Requirements for the Computation & Average Schedule Company Payments under Section 69.606 of the Commission's Rules, CC Docket No. 01-174, Notice of Proposed Rulemaking, 16 FCC Rcd 16027 (2001).

schedule filing. Such a mandate, in the view of the Commission, "would be unreasonable, if not absurd, given the tens of millions of individual arithmetic computations that were necessarily performed by computer in developing revisions to the settlement schedules.""

13. Nevertheless, for the sake of completeness, in the following paragraphs I respond to each of Bamberger & Neumann's complaints regarding supposedly missing or faulty explanations of NECA's calculations.
14. Bamberger & Neumann state that they have not been able to replicate NECA's variance weights for its Interstate Cat. 2 COE model.<sup>12</sup> NECA can only speculate on the approach used by Bamberger & Neumann for this test, as their declaration does not explain the methods they used for determining variance weights. NECA's Filing does, however, contain a detailed description of the precise method used by NECA to calculate these weights.<sup>13</sup> It is not clear why Bamberger & Neumann were unable to use this information to replicate NECA's variance weights.
15. Bamberger & Neumann go on to say that they were also unable to replicate NECA's Interstate Cat. 2 COE model using their own, presumably different, variance weights. It should be obvious that the precise model developed by NECA can only be obtained if the same variance weights are used, not different ones.
16. Bamberger & Neumann note that NECA's Filing does not list DEM weight data for sample cost study areas, but concede this data is available in other NECA filings and can also be derived from data included in the Filing.<sup>14</sup>
17. Bamberger & Neumann make four observations about NECA's access minutes forecasting model.
  - a. First, they point out an apparent inconsistency between the text of NECA's filing (which states that NECA used a 91 month history of access minutes from January 1999 through July 2006) and Appendix D4 of the Filing (which shows data ending in May 2006). NECA hereby amends Appendix D4 of the Filing to include the two lines of data for June and July 2006 used in NECA's calculations:

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<sup>11</sup> *MTS and WATS Market Structure: Average Schedule Companies*, Memorandum Opinion & Order, 6 FCC Rcd 6608 (1991), Appendix, at ¶31, n.123.

<sup>12</sup> *Bamberger & Neumann* at 11.

<sup>13</sup> See *NECA Filing* at IV-10 through IV-14.

<sup>14</sup> *Bamberger & Neumann* at 4, n.6.

Supplemental Data to Appendix D4

Date	IS MOU	Real Price Index	Real Income (\$Billions)	Real Cellular Price	Employment (000s)
200606	428,360,174	0.15117	4,756	0.36565	135,374
200607	429,287,080	0.15301	4,761	0.36280	135,422

- b. Second, Bamberger & Neumann note that NECA did not explain which method it used to correct this model for autocorrelation.<sup>15</sup> NECA used the commonly- accepted Cochrane-Orcutt method.
- c. Bamberger & Neumann's third concern with the access minutes model is that NECA did not provide the economic forecast data it obtained from Macroeconomic Advisors." NECA did not include this data in its filing because the forecast was a proprietary product of the vendor, which NECA has agreed not to share with others while it still has financial value to the vendor.
- d. Finally, Bamberger & Neumann assert that NECA did not explain the extrapolation of the cellular price trend used for its access minute forecast model." NECA's Filing does say that NECA extrapolated the average cellular price trend that began in January 2003. NECA used a negative exponential time regression model fit to cellular price data for January 2003 through July 2006.<sup>18</sup> This produced the following model:

$$\text{LN(Cellular Price)} = 4.549 - 0.005905 \times \text{Time}$$

The model also includes 11 seasonal dummy variables and an outlier dummy variable for April 2006. The growth rate produced by this model was a 6.6% annual decline in cellular prices.

18. Bamberger & Neumann complain that NECA does not provide results of its tests of stratification of access lines growth models.<sup>19</sup> Notably, Bamberger & Neumann do not claim that NECA's choice of stratification is suboptimum, or that the resulting models are deficient in any way. Nor do Bamberger & Neumann suggest that NECA's model is unsupported by the data. Rather, they merely complain that NECA did not document the details of models that it chose *not* to use.

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<sup>15</sup> *Id.* at 5-6.

<sup>16</sup> *Id.*, n. 11.

<sup>17</sup> *Id.*

<sup>18</sup> *NECA Filing* at V-16.

<sup>19</sup> *Bamberger & Neumann* at 6



19. Requiring NECA to include additional explanations of procedures it did not follow in developing the average schedules would perhaps double or triple the size of this filing, without contributing in any meaningful way to the Commission's evaluation of NECA's proposals.
20. Similarly, Bamberger & Neumann complain that NECA did not report amounts resulting from intermediate steps of its calculation of revenue requirements of sample companies." Bamberger & Neumann find no apparent fault with NECA's methods or description, but instead seem to want NECA to display the results of literally tens of thousands of calculations used to determine final results. As noted above, the Commission does not require that NECA display every intermediate calculation supporting its average schedule filings. In any event, Bamberger & Neumann could well have performed these calculations on its own, had they considered it important to do so.
21. Bamberger & Neumann identify two study areas for which NECA has provided more than one value of access line counts, and assert that this indicates an inconsistency in NECA's data.<sup>21</sup> Section III.F of NECA's filing explains the special use of demand and accounts for study areas with high traffic volumes.<sup>22</sup> NECA explains there that some companies have high traffic volumes in one year but not in subsequent years. Consequently, to assure that adequate representation of high volume costs and demand, NECA does a special selection of high volume data depending on reporting histories of sample study areas.
22. Thus, a sample study area that does not currently have high traffic volumes, but did have high volumes in one of the underlying accounting periods, would be represented in NECA's study twice, once for the normal base period and projection of data, and once for the high volume period. As explained, access line counts and other demand data used for the high volume period were the actual unprojected data reported by the sample study areas. In contrast, all other data was projected to the test period based on the base period described in NECA's study.
23. Bamberger & Neumann comment that NECA did not file computer programs, and speculates that, as a result, "it is likely not possible to verify NECA's results."<sup>23</sup> I am unaware of any case in which the Commission has required carriers to file copies of computer programs used to calculate data submissions.
24. Bamberger & Neumann point to page **VII-3** of NECA's Filing, which lists parameters of the proposed common line formula, and assert that this listing does

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<sup>20</sup> *Id.* at 7.

<sup>21</sup> *Id.* at 10.

<sup>22</sup> *NECA Filing* at III-9.

<sup>23</sup> *Bamberger & Neumann* at 11

not explain how the parameter KI was derived.<sup>24</sup> Had Bamberger & Neumann read two pages more, they would have found the explanation of the derivation of all parameters, including the derivation of parameter K1, on page VII-5.

25. Bamberger & Neumann note that NECA used an iterative process to develop its central office formula coefficients, but assert that NECA did not explain its iterative process.<sup>25</sup> Bamberger & Neumann completely overlook the description of the iterative process on pages VII-20 through VII-25 of NECA's Filing, and the very specific details of the method in Exhibit 7.5.
26. Bamberger & Neumann further contend that NECA does not provide any information on its use of the Mean Relative Absolute Deviation method used to develop central office formula coefficients for high traffic volumes.<sup>26</sup> This measure of variance is adapted from measures common in statistical texts, and should have a meaning fully apparent from its name. For completeness, however, the following explanation is provided:
  - a. The most common measure of statistical variation is the standard deviation, which is the square root of the average of squared deviations of estimates from actual data.
  - b. In some cases, if deviations vary very significantly, it is more statistically effective to use absolute deviations (their absolute values) rather than squared deviations, yielding a measure of variation called the mean absolute deviation.
  - c. Because of the enormous variance in high volume minutes of a few average schedule study areas, NECA found it necessary to adapt this measure one step further, by taking the mean not of absolute deviations, but of relative absolute deviations (absolute value of the deviation divided by its corresponding actual cost per minute). This is what is described as the Mean Relative Absolute Deviation method in NECA's Filing.
27. Bamberger & Neumann assert that NECA did not explain how it constrained the "route length model."<sup>27</sup> On Page VII-38 of NECA's filing, one page away from the reference provided by Bamberger & Neumann, NECA explicitly lists the precise constraints employed.
28. Bamberger & Neumann seek to replicate NECA's calculation of a 'baseline cost per minute', but reach a different result.<sup>28</sup> In this regard, NECA has determined

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<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.* at 12

<sup>27</sup> *Id.*


<sup>28</sup> *Id.* at 13.

that the data file used by Bamberger & Neumann was the correct file for testing the central office formula generally, but not the correct one for testing the access line factor component of that formula, which includes the 'baseline cost per minute' step. The file used by Bamberger & Neumann contains high volume period costs and demand data for high volume study areas, while the access line factor model relied entirely on test period estimates of cost and demand.

29. In addition, NECA hereby amends an error in the text of its filing, to remove variance weights from the description of the baseline calculation, as the count of observations used in this calculation was too small for performance of a valid outlier test. The equation on page VII-19 of the Filing should read as follows.

$$\text{Baseline Cost Per Minute} = \frac{\sum (\text{Sample Weight} \times \text{Monthly CO Revenue Requirement})}{\sum (\text{Sample Weight} \times \text{Access Minutes})}$$

30. These additional clarifications are provided to supplement or correct minor details in NECA's filing. None represent any change or correction to the methods used by NECA in preparing its formulas, nor do they demonstrate any need for adjustments to NECA's proposed formulas.
31. I have shown here that Bamberger & Neumann are wrong in asserting that proposed settlements are inflated by more than \$100 million. No other observations by Bamberger & Neumann even assert a finding of error in any of NECA's methods or results. No point of their declaration undermines the validity of NECA's methods. Consequently, to the extent the Commission considers these late-filed comments at all, it should reject all claims and assertions made in the Bamberger & Neumann Declaration with respect to NECA's 2007 Modification of Average Schedules.

  
Stephen Quinnan

May 17, 2007

### Attachment A

#### Sample Mean With No Non-Response Adjustment

A Sample Member	B Cost	C Sample Weight	D Weighted Cost (BxC)
1	\$100	2.00	\$200
2	\$200	1.50	\$300
3	\$300	1.50	\$450
4	\$400	1.00	\$400
5	\$500	1.00	\$500
Total		7.00	\$1,850
Mean (Total D / Total C)			\$264.29

#### Sample Mean With 20% Non-Response Adjustment

A Sample Member	B cost	E Adjusted Sample Weight (1.20xC)	F Weighted Cost
1	\$100	2.40	\$240
2	\$200	1.80	\$360
3	\$300	1.80	\$540
4	\$400	1.20	\$480
5	\$500	1.20	\$600
Total		8.40	\$2,220
Mean (Total F/Total E)			\$264.29

This hypothetical sample includes five members. Costs reported by the sample members are displayed in Column B. The assignment of unequal sample weights, as shown in Column C, reflects a sample selected with unequal probability, as is the case with the sample used in NECA's study. Column D shows the product of costs and sample weights, and the overall weighted total of costs. Column D also shows the sample estimate of the population mean of costs, \$264.29, which is the ratio of total weighted costs to the total of sample weights.

The second half of the table shows the effect of adjusting the sample weights for non-response. Sample weights in Column E are 20% higher than the weights in Column C, adjusting for the absence of a data response by the sixth member of the hypothetical sample. The total weighted sum in this case is \$2,220, 20% higher than the unadjusted total of \$1,850. Notwithstanding the difference in totals in Columns D and F, the means are identical. The adjustment to sample weights cancels out of the calculation when the estimated total is divided by the sum of sample weights. A very similar cancellation would occur if the Exhibit showed a ratio calculation, such as cost per line, instead of a mean calculation.